

**REMARKS**

Claims 1-12 were pending in the application. Claims 13-17 are newly added. Support for the newly added Claims is in the Applicant's specification as originally filed. (*See Applicant's Specification* Page 19, lines 11-13; Page 10, line 28 - Page 11, line 2 and Page 13, lines 4-7.) Of the claims, Claims 1, 5, 9 and 13 are independent claims. Claims 1, 5 and 9 are rejected under 35 U.S.C. 102(b) as being anticipated by Yamada et al. (U. S. Patent No. 6,452,908). Claims 2-4, 6-8 and 10-12 are rejected under 35 U.S.C. 103(a) as being unpatentable over Yamada in view of Kanamori et al. (U.S. Patent No. 6,338,079) and Beshai et al. (U.S. Patent No. 6,744,775). That rejection is respectfully traversed and reconsideration is requested.

**Regarding Rejection of claims 1-12 under 35 U.S.C. § 102(b)**

Claims 1, 5 and 9 are rejected under 35 U.S.C. 102(b) as being anticipated by Yamada et al. (U. S. Patent No. 6,452,908).

Before discussing the cited references however, a brief review of the Applicant's disclosure may be helpful. The Applicant's disclosed invention is directed to a method for updating a lookup table. Access is provided to a first set of routes and associated first subtree entry stored in a first memory space in the lookup table through a first pointer to the first subtree entry. A second set of routes and associated subtree entry is stored in a second memory space in the lookup table. Access is switched to the second set of routes stored in the second memory by replacing the first pointer stored to the first subtree entry with a second pointer to the second subtree entry. (*See Applicant's specification* Page 45, line 7 – Page 47, line 22 and Fig. 25.)

The cited prior art, Yamada is directed to a route tree table that stores route data in the form of a dichotomy (binary) tree structure. There is a route entry stored in the table for each node in each of the 32 levels in the binary tree. Each route entry is directly accessible in the table and can store the data corresponding to the route or a pointer to the data that is stored in another memory. (*See Col. 6, line 64- Col. 7, line 3; Fig. 3; and Col. 8, lines 22 - 58.*)

Yamada's discussion of a table storing route data for each node in a dichotomy tree structure does not teach or suggest at least "providing access to a first set of routes and associated first subtree entry stored in a first memory space in the lookup table through a first pointer to the

first subtree entry" as claimed by the Applicant in Claim 1. (See Applicant's Specification Page 43, line 12 - page 44, line 5 and Fig. 23.) Yamada's discussion of a table having a route entry per node in a binary tree structure merely discusses a prior art lookup tables used for searching for a match using a binary tree search that matches an input bit by bit as discussed in the background of the Applicant's specification. (See Applicant's Specification Page 2, line 24 - 26.) Yamada's discussion of a bit by bit search of nodes in all levels of a binary tree does not even suggest the Applicant's disclosed "subtree entry" or even of storing a set of routes associated with a subtree entry. In contrast, in the table discussed by Yamada each node in the binary tree has a corresponding route entry requiring multiple searches of the table bit by bit to find the longest prefix match.

Independent Claims 5 and 9 recite a like distinction in terms of an apparatus and thus similarly patentably distinguish over the prior art.

Accordingly the rejections under §102 are believed to be overcome.

Regarding Rejection of claims 1-12 under 35 U.S.C. § 103(a)

Claims 2, 6, and 10 are rejected under 35 U.S.C. 103(a) as being unpatentable over Yamada in view of Kanamori et al. (U.S. Patent No. 6,338,079). Claims 3-4, 7-8 and 11-12 are rejected under 35 U.S.C. 103(a) as being unpatentable over Yamada in view of Beshai et al. (U.S. Patent No. 6,744,775).

Claims 2-4 are dependent on independent Claim 1, Claims 6-8 are dependent on independent Claim 5 and Claims 10-12 are dependent on independent Claim 9. Accordingly, these claims should be found in allowable condition for the same reasons as claims 1, 5 and 9 above, as well as on the basis of additional limitations in these claims.

Turning to the cited prior art, Kanamori is directed to a method for exchanging data between programs executing on a computer system. Data is exchanged through the use of a shared memory block and messages transferred between the computer programs using an interprocess communication technique. The memory block is allocated prior to use and deallocated when the data stored in the block has been exchanged between the programs. (See Kanamori Col. 1, line 42 - Col. 2, line 62.)

The cited prior art, Beshai is directed to a router that determines the best route between nodes in a network, that is, the link or chain of links connecting a source (origin) node to a sink (destination) node. A route set includes a number of routes between the source node and the sink node that comprise the node pair. Referring to Fig. 1 and Fig. 5 of Beshai, for example, the route set between node 3 and node 0 includes two routes, that is, 0-1-7-3 and 0-1-2-3. The route set discussed by Beshai does not teach or suggest the Applicant's "first set of routes". In contrast, the Applicant's first set of routes are associated with nodes at the bottom level of a subtree. (See Applicant's specification, Fig. 23, 2002, 2006, 2007.)

To establish a prima facie case for obviousness under 35 U.S.C. § 103(a), (1) there must be some suggestion or motivation to combine reference teachings. (2) There must be a reasonable expectation of success. (3) The references when combined must teach or suggest all the claim limitations. For the reasons discussed below, it is respectfully submitted that the Office has not established a prima facie case under 35 U.S.C. § 103(a) for Claims 2-4, 6-8 and 10-12, and that therefore, Claims 2-4, 6-8 and 10-12 are allowable.

Kanamori's discussion of a method for exchanging data between programs in a computer system does not teach or suggest the Applicant's disclosed method for updating a lookup table in which the first memory space storing a first set of routes and associated first subtree memory is deallocated after switching access to the second set of routes.

Kanamori is directed to interprocess communication between computer programs and Yamada is directed to a lookup table for determining route data for a packet. One of ordinary skill in the art of routing packets would not look to interprocess communication between computer programs to provide update of a lookup table as claimed. Thus, there is no suggestion to combine Yamada and Kanamori. Even if combined, the present invention does not result as argued above.

Beshai is directed to storing routes between nodes in a network and Yamada is directed to a lookup table for determining route data for a packet. One skilled in the art of routing packets would not look to systems for storing routes between nodes in a network to provide update of a lookup table as claimed. Thus, there is no suggestion to combine Yamada and Beshai. Even if combined, the present invention does not result as argued above.

Therefore, separately or in combination, Yamada, Kanamori and Beshai do not teach or suggest the Applicant's claimed invention. Thus, none of the cited prior art alone or in combination makes obvious the Applicant's claimed method for updating a lookup table.

Accordingly the rejections under § 103 are believed to be overcome.

The present invention as now claimed is not believed to be anticipated by or made obvious from the cited art or any of the prior art. Removal of the rejections under 35 U.S.C. 102(b) and 35 U.S.C. 103(a) and acceptance of Claims 1-17 is respectfully requested.

### CONCLUSION

In view of the above amendments and remarks, it is believed that all claims are in condition for allowance, and it is respectfully requested that the application be passed to issue. If the Examiner feels that a telephone conference would expedite prosecution of this case, the Examiner is invited to call the undersigned.

Respectfully submitted,

HAMILTON, BROOK, SMITH & REYNOLDS, P.C.

By Caroline M. Fleming  
Caroline M. Fleming  
Registration No. 45,566  
Telephone: (978) 341-0036  
Facsimile: (978) 341-0136

Concord, MA 01742-9133

Dated: 3/14/05